Gestational Diabetes Guidelines Keypoints

Screening

- Universal screening is recommended at 24 – 28 weeks gestation.
- Recommended screening test is a 1 hour 50 g oral glucose challenge test (OGCT) in a non-fasting state. The test is positive if serum/plasma glucose is ≥130 mg/dl. If this screen is positive a diagnostic 100 g 3 hour oral glucose tolerance test (OGTT) is indicated.
- Early screening at first prenatal visit is indicated for patients with the following risk factors for pre-existing DM:
  - Obesity (BMI > 28)
  - Age > 40 years
  - History of GDM requiring insulin, or history of abnormal glucose intolerance
  - Diabetes in first-degree relative
  - Polycystic Ovarian Syndrome (PCOS)
  - Ethnic groups with high rates of Type 2 DM (e.g. Hispanic, American Indian, African American / Black, Asian American, and Pacific Islander)
- Re-screen patients with above risk factors at 24-28 weeks gestation if early 50 g OGCT screen is negative

Diagnosis

- If the patient's 1 hour 50 g OGCT screening test is > 200mg/dl, then a diagnosis of GDM is highly likely and treatment may be initiated without further testing.
- The definitive test for GDM is a 3 hour 100 g OGTT in a fasting state after a 3 day carbohydrate loading diet.

3 hour 100 g OGTT	
Time	**mg/dl**
fasting	≥ 95
1 hour	≥ 180
2 hour	≥ 155
3 hour	≥ 140

Two or more elevated values define GDM.

If one abnormal value, recommend exercise and nutrition counseling. Either repeat OGTT in one month or perform periodic glucose monitoring.

Medical Nutrition Therapy

- See Gestational Nutrition Guidelines

Urine Ketone Testing

- Ketone testing is an important part of monitoring.
- Consider urine ketone testing if :
  - Patient is obese (BMI ≥ 26)
  - Patient experiences weight loss
  - Insulin is initiated
  - Patient has other illnesses
- Ketone test first morning urine for 1 week after initiation of nutrition therapy and again after initiation of insulin therapy to ensure no ketosis occurs due to calorie restriction.
- Discontinue ketone testing if all results are trace or less. Interpretation of small ketones needs to take into consideration that it may represent normal pregnancy physiology.

Blood Glucose Monitoring

- All patients with GDM should do home blood glucose monitoring with fingerstick.
- Optimal fingerstick values are:
  - Fasting < 95 mg/dl
  - 1 hour postprandial <130 mg/dl
  - 2 hour postprandial < 120 mg/dl
- Testing Regimen
  First Week: 4 times per day (fasting and one or two hour postprandial)
  Subsequent Weeks: Optimal control with diet only - test 2 days each week 4 times per day
  Resume daily testing for 1 week for any abnormal value
  Insulin requiring patients - ongoing daily testing 4 times per day (more often if indicated).

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Insulin Management

- Allow up to one week to obtain optimal control with medical nutrition therapy before initiating insulin.
- Consider starting insulin if more than 2 elevated blood glucoses within one week.
- Patient should report results of home glucose monitoring at least 2-3 times per week until in optimal control, then report weekly.
- If optimal control is not achieved within 2 weeks, then a consultation is encouraged with a physician who has additional expertise in managing insulin in pregnant patients.

Antepartum Surveillance

- Initiate daily fetal movement determination (kickcount) at 28 weeks.
- If euglycemic with diet only: twice weekly nonstress test (NST) starting at 40 weeks.
- If not on insulin, but unable to document euglycemia: twice weekly NSTs starting at 36 weeks.
- If treating with insulin, twice weekly NSTs starting at 32-34 weeks.

Intrapartum Management

- All patients should have either a clinical or ultrasound estimate of fetal weight (EFW) within 2 weeks of estimated delivery date.
  · If EFW > 4500 g, then cesarean delivery without trial of labor is reasonable.
  · If EFW 4000-4500 g, then counsel patient regarding a trial labor versus cesarean delivery based on clinical pelvimetry, obstetric history and fetal growth pattern.
  · If EFW < 4000 g, then follow usual obstetric standards
- Patients with good glycemic control have little indication for delivery prior to 40 weeks.
- Patients with poor glycemic control should be considered for delivery before 39 weeks.
- Consider fetal lung maturity documentation by amniocentesis in patients undergoing induction of labor or cesarean delivery prior to 39 weeks.
- Check intrapartum blood glucose every 1 to 2 hours.
- Insulin Use: Initiate insulin drip for fingerstick blood glucose ≥ 120mg/dl.
  Adjust insulin drip hourly based on fingerstick blood glucose results to keep levels between 70 – 100mg/dl.

Postpartum Follow-up

- Discontinue insulin therapy with delivery.
- If single casual blood glucose < 200mg/dl on postpartum day 1-3, then blood glucose monitoring is not required during the postpartum period.
- Obtain 2 hour 75 g OGTT at 6 - 8 weeks postpartum if:
  · patient required insulin during pregnancy
  · patient diagnosed with GDM prior to 24 weeks gestation
  · patient had a value of > 200mg/dl on the 1 hour 50 g OGCT
  · patient had a fasting result of > 95mg/dl on the 3 hour 100 g OGTT

2 Hour 75 g OGTT		
Any abnormal value is diagnostic	**Diagnosis of Pre-Diabetes (mg/dl)**	**Diagnosis of Type 2 Diabetes (mg/dl)**
Fasting	110-125	≥ 126
1 hour		≥ 200
2 hour	140-199	≥ 200

- Patients not requiring the 2 hour 75 g OGTT or who have normal results should have a fasting blood glucose annually.
- Refer patients with type 2 diabetes or pre-diabetes to a primary care provider.
- **All patients should be strongly encouraged to have diabetes education, and postpartum consultation regarding the long-term implications of the history of GDM.**

* These guidelines are not intended to replace the clinical judgment of healthcare providers.